

## WHO Virus Reference Centers

The first WHO Virus Reference Center, the World Influenza Center, was designated in 1947 and shortly afterwards the International Influenza Center for the Americas was set up. In recent years a network of reference centers for the three main groups of viruses—enteroviruses, respiratory viruses other than influenza, and arboviruses—has been organized and now functions in conjunction with the WHO virus unit.

The network consists of international and regional centers. International centers are selected from among the foremost laboratories in their particular field and their main function is research. They serve as a focus of technical information and advice for the regional centers and often originate along with the WHO Secretariat, collaborative studies between the laboratories in the network. They serve as final courts of appeal for the identification of unusual or new viruses and work closely with the appropriate nomenclature subcommittee of the International Association of Microbiological Societies. Generally, they communicate with the regional centers and not directly with national laboratories.

The regional centers are in direct contact with the national laboratories. Their functions are as follows:

1. Identify viruses submitted to them by national laboratories.
2. Hold prototype strains of viruses and distribute them to competent laboratories.
3. Hold reference antisera and distribute such supplies as may be available.
4. Collaborate with national laboratories, other centers, and the WHO virus unit in doing research on specific problems.
5. Assist in the collection and dissemination of information.
6. Give advice and aid to national laboratories when requested to do so.
7. Assist in training programs.

Close collaboration between the centers and the national laboratories facilitates exchange of information on laboratory and field questions and benefits all who are interested in virus diseases.

The regional centers in general deal with national laboratories nearest to them, but no rigid geographic divisions are imposed, and national virus laboratories may collaborate with the reference center of their choice provided the director of the center concurs.

### WHO VIRUS REFERENCE CENTERS AND THEIR DIRECTORS

World Influenza Centre  
National Institute for Medical Research  
London, N.W. 7, England  
*Dr. H. G. Pereira*

International Influenza Center for the Americas  
Communicable Disease Center  
Public Health Service  
Atlanta, Ga. 30333  
*Dr. R. Q. Robinson*

#### INTERNATIONAL REFERENCE CENTERS FOR RESPIRATORY VIRUS DISEASES OTHER THAN INFLUENZA

Common Cold Research Unit  
Medical Research Council  
National Institute for Medical Research  
Salisbury, Wiltshire, England  
*Dr. D. A. J. Tyrrell*

Laboratory of Infectious Diseases  
National Institute of Allergy and Infectious Diseases  
National Institutes of Health  
Public Health Service  
Bethesda, Md. 20014  
*Dr. R. M. Chanock*

#### REGIONAL REFERENCE CENTERS FOR RESPIRATORY VIRUS DISEASES OTHER THAN INFLUENZA

Respiratory Virus Laboratory  
National Institute of Health  
Tokyo, Japan  
*Dr. H. Fukumi*

Ivanovski Institute of Virology  
Moscow D. 98, U.S.S.R.  
*Prof. V. M. Zdanov*

Institute of Epidemiology and Microbiology  
Prague 10, Czechoslovakia  
*Dr. L. Syruček*

The South African Institute for Medical Research  
Johannesburg, South Africa  
*Dr. J. H. S. Gear*

Respirovirus Unit  
Virology Section  
Communicable Disease Center  
Public Health Service  
Atlanta, Ga. 30333  
*Dr. R. Q. Robinson*

Epidemiological Research Unit  
Fairfield Infectious Diseases Hospital  
Melbourne, Victoria, Australia  
*Dr. A. A. Ferris*

**INTERNATIONAL REFERENCE CENTER FOR ENTEROVIRUSES**

Department of Virology and Epidemiology  
Baylor University College of Medicine  
Houston 25, Tex.  
*Prof. J. L. Melnick*

**REGIONAL REFERENCE CENTERS FOR ENTEROVIRUSES**

The South African Institute for Medical Research  
Johannesburg, South Africa  
*Dr. J. H. S. Gear*

Enterovirus Department  
Statens Seruminstitut  
Copenhagen S, Denmark  
*Dr. H. von Magnus*

Institute of Poliomyelitis and Virus Encephalitis  
Moscow B.27, U.S.S.R.  
*Dr. M. Voroshilova*

Department of Enteroviruses  
National Institute of Health  
Tokyo, Japan  
*Dr. I. Tagaya*

Department of Bacteriology  
Faculty of Medicine  
University of Singapore  
Singapore 3  
*Prof. Lim Kok Ann*

Section de Virologie  
Laboratoire National de la Santé Publique  
Lyon, France  
*Prof. R. Sohier*

**INTERNATIONAL REFERENCE CENTER FOR ARTHROPOD-  
BORNE VIRUSES**

Department of Epidemiology and Public Health  
Yale University School of Medicine  
New Haven 11, Conn.  
*Dr. Wilbur G. Downs*

**REGIONAL REFERENCE CENTERS FOR ARTHROPOD-BORNE  
VIRUSES**

Institute of Virology  
Czechoslovak Academy of Sciences

Bratislava 9, Czechoslovakia  
*Dr. D. Blaskovic*

East Africa Virus Research Institute  
East Africa Common Services Organization  
Entebbe, Uganda  
*Dr. M. C. Williams*

Institute of Poliomyelitis and Virus Encephalitis  
Moscow B.27, U.S.S.R.  
*Prof. M. P. Cumakov*

Virology Section  
Communicable Disease Center  
Public Health Service  
Atlanta, Ga. 30333  
*Dr. Telford H. Work*

Department of Microbiology  
The John Curtin School of Medical Research  
Australian National University  
Canberra, Australia  
*Prof. F. J. Fenner*

Department of Virology and Rickettsiology  
National Institute of Health  
Tokyo, Japan  
*Dr. M. Kitaoka*

Institut Pasteur  
Dakar, Senegal  
*Dr. P. Brès*

Service de la Fièvre Jaune et des Arbovirus  
Institut Pasteur  
Paris XVe, France  
*Dr. R. Panthier*

**REGIONAL REFERENCE CENTER FOR HUMAN RICKETTSIOSIS**

Rocky Mountain Laboratory  
National Institute of Allergy and Infectious Diseases  
Public Health Service  
Hamilton, Mont. 59840  
*Dr. C. Philip*

**INTERNATIONAL REFERENCE CENTER FOR TRACHOMA**

Francis I. Proctor Foundation for Research in  
Ophthalmology  
University of California Medical Center  
San Francisco 22, Calif.  
*Prof. Phillips Thygeson*

## Eradicating Measles

To protect preschool children against measles, the Public Health Service has contracted to buy at least 1½ million doses of vaccine during the next year. The cost of the vaccine, including the gamma globulin to minimize reactions, will be 68 cents a dose.

The purchase is being made to help State and local health departments eradicate measles, one of the most serious and widespread childhood diseases.

Since measles vaccine was licensed in 1963, approximately 12 million doses have been given in the United States, and the number of cases of measles reported has dropped from 385,000 in 1963 to 266,000 in 1965. It is estimated that only one-tenth of all cases of measles are reported.



**Public Health Service Grants and Awards, Fiscal Year 1965. Part I. Research projects.** *PHS Publication No. 1346, Part I; 1965; 672 pages; \$1.75.* One of a series of five parts which covers the various forms of financial assistance available from the Public Health Service. Provides tabulations which give details on the nature, distribution, and individual amounts of 16,372 research grants awarded during fiscal year 1965. Others to be published are part II which covers training; part III, all construction grants except those for waste treatment works; and part IV, health services formula and project grants. Part V presents summary tables covering the data offered in parts I through IV.

**Arthritis and Rheumatism.** *PHS Publication No. 29 (Health Information Series No. 9); 1965; leaflet; 5 cents, \$3 per 100.* Discusses prevalent forms and cause of arthritis and rheumatism: rheumatoid arthritis, osteoarthritis, gout, and fibrositis. Gives the signs and symptoms of each form and discusses present treatment. Cautions against self-treatment.

**Health Statistics From the U.S. National Health Survey. National Center for Health Statistics.**

**COMPUTER SIMULATION OF HOSPITAL DISCHARGES.** *PHS Publication No. 1000, Series 2, No. 13; February 1966; 35 pages; 35 cents.*

**DISABILITY DAYS.** United States, July 1963–June 1964. *PHS Publication No. 1000, Series 10, No. 24; November 1965; 53 pages; 40 cents.*

**CURRENT ESTIMATES FROM THE HEALTH INTERVIEW SURVEY.** United States, July 1964–June 1965. *PHS Publication No. 1000, Series 10, No. 25; November 1965; 44 pages; 20 cents.*

**HEARING LEVELS OF ADULTS.** By age and sex, United States, 1960–

1962. *PHS Publication No. 1000, Series 11, No. 11; October 1965; 34 pages; 30 cents.*

**PERIODONTAL DISEASE IN ADULTS.** United States, 1960–1962. *PHS Publication No. 1000, Series 11, No. 12; November 1965; 30 pages; 35 cents.*

**CHARACTERISTICS OF PATIENTS IN MENTAL HOSPITALS.** United States, April–June 1963. *PHS Publication No. 1000, Series 12, No. 3; December 1965; 44 pages; 35 cents.*

**DIVORCE STATISTICS ANALYSIS.** United States, 1962. *PHS Publication No. 1000, Series 21, No. 7; December 1965; 56 pages; 40 cents.*

**Kidney Diseases. A guide for public health personnel.** *PHS Publication No. 1384; November 1965; 31 pages; 25 cents.* Presents a brief survey of kidney diseases to introduce health workers to this field of interest. Following are the four major sections. Basic concepts of renal anatomy and function gives the reader a simplified idea of the physiological principles of renal function. Clinical features of common renal diseases presents broad outlines of the major diseases leading to renal failure. Therapeutic approaches to renal failure sketches the types of therapy used in dealing with endstage kidney disease. Public health aspects of renal disease explores various levels of prevention in renal diseases and discusses program possibilities.

**Profiles of Ph.D.'s in the Sciences.** *NAS-NRC Publication No. 1293; 1965; \$2.50; 123 pages.*

Includes results of a study of 10,000 doctorate holders, graduates from U.S. universities in the years 1935, 1940, 1945, 1950, 1955, and 1960, who have been questioned about their jobs, geographic migration, earnings, and family and educational backgrounds. Shows career patterns of carefully selected samples of the most highly trained manpower in the

nation, with particular reference to people in the health-related sciences. Contains information on important aspects of their careers and an appendix which offers an in-depth study of career lines of various subgroups. This report, sponsored by the National Institutes of Health, is the first of a series that will embrace a long-term, intensive study of the career patterns of doctorate holders in several fields with emphasis on the health-related sciences.

Copies of this report are available from the National Academy of Sciences, 2101 Constitution Ave. NW., Washington, D.C., 20418.

**The Artificial Kidney. What it is, how it works.** *PHS Publication No. 1409; 1965; 31 pages; 25 cents, \$18.75 per 100.* Describes the artificial kidney and its functions. Tells how the artificial kidney, based on the principle of dialysis, removes or adds substances to the blood and how it can take the place of destroyed kidneys and return patients to useful life.

**VD Fact Sheet, 1965.** *PHS Publication No. 341; revised 1965; 18 pages.* Offers to public health specialists and physicians current statistics on the incidence and prevalence of syphilis and gonorrhea. Includes general information on casefinding activities, mortality and insanity due to syphilis, treatment of syphilis and gonorrhea, and penicillin reactions.

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This section carries announcements of new publications prepared by the Public Health Service and of selected publications prepared with Federal support.

Unless otherwise indicated, publications for which prices are quoted are for sale by the Superintendent of Documents, U.S. Government Printing Office, Washington D.C., 20402. Orders should be accompanied by cash, check, or money order and should fully identify the publication. Public Health Service publications which do not carry price quotations, as well as single sample copies of those for which prices are shown, can be obtained without charge from the Public Inquiries Branch, Public Health Service, Washington, D.C., 20201.

The Public Health Service does not supply publications other than its own.

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**SHAW, JOHN D.** (Pennsylvania Department of Health), and **SCHRACK, WILLIAM D., Jr.:** *Malaria contracted in Pennsylvania. Public Health Reports, Vol. 81, May 1966, pp. 413-418.*

Indigenous and immigrating reservoirs of human malaria parasites exist periodically in Pennsylvania in the midst of a susceptible population. Moreover, adult mosquitoes of the species *Anopheles quadrimaculatus* are found in all 10 climatic divisions of the State; peak populations of the species have been observed in July and August. In July and August the average daily temperature in Pennsylvania will permit completion of the extrinsic incubation period of *Plasmodium malariac* within 25-30 days and of

*Plasmodium vivax* within 14 days. The presence of the mosquito, its proximity to man, and its feeding habits make it possible under these climatic conditions for the mosquito to transmit malaria from a reservoir to a susceptible population. The few cases of reported malaria in Pennsylvania provide further evidence that all conditions necessary for transmission of this disease are periodically present in the State and that transmission does occur.

**FIRST, MELVIN W.** (Harvard School of Public Health), **VILES, FREDERICK, J., Jr.**, and **LEVIN, SAMUEL:** *Control of toxic and explosive hazards in buildings erected on landfills. Public Health Reports, Vol. 81, May 1966, pp. 419-428.*

The principal hazard associated with construction on refuse-filled land arises from anaerobic production of combustible gases by methane-producing bacteria. Gas-tight construction over landfills appears to be difficult, if not impossible, because of gas pressures under the structure resulting from biological gas production.

During investigations of gas levels in a housing development constructed on sanitary landfills, unsafe methane concentrations were found in a high proportion of the buildings. A concrete slab laid on top of the fill did not prevent gases produced in the fill from penetrating into

the buildings. Several sealants were tested and found inadequate.

The results of periodic gas samplings conducted over several years in the sub-basement spaces of a number of buildings indicated that organic fill located around and under heated buildings becomes completely degraded in approximately 5 years, releasing methane at a proportionately rapid rate. This produces a severe explosion hazard unless suitable methods of aerating and venting are employed. Continuous mechanical ventilation at a rate of one or two air changes per hour adequately reduced methane concentrations.

**FISHER, GAIL F.** (Public Health Service), and **McDONALD, GLEN W.:** *Followup on diabetic suspects. Public Health Reports, Vol. 81, May 1966, pp. 429-433.*

In the Washington, D.C., metropolitan area 18,690 Federal employees were tested for diabetes. Of these, 1,922 were positive to the initial screening test, and 297 new or known cases were identified. During a 2-year interval following the initial screening, 843 of the screenees with positive results who had not been diagnosed diabetic either received an additional screening test or a glucose tolerance test. Within this group, 128 additional cases of diabetes were identified. Almost one in four of the persons with initial positive results was identified by a private physician as diabetic within the 2-year period. This yield was achieved even though the critical level for identification of positive cases was low and 10.3 percent of the participants' screening results were positive.

We conclude that (a) an agency offer-

ing diabetes screening tests should continuously provide testing to persons who have exhibited elevated blood glucose levels even if their retest results have been negative and they have therefore not been referred to their physicians, or were referred but received no diagnosis; (b) the yield of new cases of diabetes among persons with positive screening results but who have not been diagnosed as diabetic is exceedingly high even when a retest is done within 2 years of the initial testing; (c) efforts should be made to inform all diabetes suspects of the nature and symptoms of diabetes; and (d) the staff of screening agencies cannot assume that a large proportion of those with positive screening results but no physician's diagnosis of diabetes will voluntarily seek another test.

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**MERTEN, WALTER (Public Health Service): *PERT and planning for health programs. Public Health Reports, Vol. 81, May 1966, pp. 449-454.***

PERT—Program Evaluation and Review Technique—is a management tool suggested to assist the health administrator with planning responsibilities. The technique can rationalize the planning process by identifying events necessary for reaching a program objective, showing the interrelationship and sequence of these events, and determining the least time required to reach a program objective. Problem areas can be anticipated by pinpointing critical series of events.

The major steps in the construction of a PERT system after agreement upon the program objective are: (a) compiling a work breakdown structure, (b) developing a network, (c) estimating time for each activity, (d) determining a critical path and slack times, and (e) scheduling

work processes. The technique is used most advantageously in programs requiring simultaneous activities and having a time limitation. As a basis for planning objective oriented work, PERT provides information for scheduling, costing, re-directing, and evaluating health programs.

A multiple screening program was used to illustrate the application to a typical public health program. Various types of large meetings, immunization programs, processing and obtaining data for vital records, and the promotion of legislation are other program areas to which the technique might be profitably applied. Further experimentation could lead to an almost limitless number of complementary PERT-public health relationships.

**SAUER, H. I. (Public Health Service), PAYNE, G. H., COUNCIL, C. R., and TERRELL, J. C.: *Cardiovascular disease mortality patterns in Georgia and North Carolina. Public Health Reports, Vol. 81, May 1966, pp. 455-465.***

For white males aged 45-64 and 35-74, the southern Blue Ridge area and adjacent counties of Georgia and North Carolina have the lowest death rates in these two States—for all cardiovascular diseases, coronary heart disease, and all causes, for the 10-year period 1950-59. These rates differed little from the low rates in the U.S. western plains.

In the two States, the highest rates (Savannah and Augusta, Ga., and Raleigh, N.C., and the areas south of Augusta and Raleigh) were generally twice as high as those in the low-rate areas for coronary heart disease and all cardiovascular diseases.

Specified methods were used to reduce

random error and to test and increase the adequacy of death rates for epidemiologic study of cardiovascular diseases.

The geographic pattern of rates was generally quite similar for 1950-59, 1949-51, and 1959-61. Also, the pattern of death rates for white men aged 65-74 years was similar to that for those aged 55-64 years.

A marked degree of association was noted between death rates and soil types in Georgia, sufficient to encourage further epidemiologic study. A high correlation was also noted between death rates for coronary heart disease and lung cancer. The degree of this correlation is being explored in other States.

**CASO, ELIZABETH K. (Massachusetts Department of Public Health), and PHILLIPS, HARRY T.: *Small-grants projects in Massachusetts for the chronically ill and aged. Public Health Reports, Vol. 81, May 1966, pp. 471-477.***

A network of community services for the chronically ill and the aged is evolving from a small-grants program of the division of adult health, Massachusetts Department of Public Health. Emphasis has been placed on the provision of consultation service to assist potential applicants in formulating a project design.

A total of 35 applications for chronic disease project grants were approved by the division from January 1, 1963, to December 31, 1965. These projects have

served to awaken interest, to encourage experimentation, and to stimulate the development of new or improved services. The administration and experience gained from the development of a project plan has provided educational experience for the personnel in community agencies. In addition, experimentation facilitated by this program has provided the basis for more realistic, future statewide programming.